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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,986	03/01/2002	Gerard O'Driscoll	TD-166	6316
29106	7590	02/23/2004	EXAMINER	
ROBERT GROOVER III 11330 VALLEYDALE DR. DALLAS, TX 75230			CASCHERA, ANTONIO A	
			ART UNIT	PAPER NUMBER
			2676	8

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,986

Applicant(s)

O'DRISCOLL, GERARD

Examiner

Antonio A Caschera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-3 and 5-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The applicant has amended independent claims 1 and 5 and has added new independent claims 13, 19, 22 and 26 which include the specific limitation of, "... wherein said determination is made without the use of an error term or per pixel decisions." Such a limitation is not supported by the specification as originally filed and the fact that such a limitation was submitted, in Amendment A, to add to the specification is further proof of its absence in the originally filed specification. Therefore the above limitation presents new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed. Further, the examiner suggests the applicant claim what the invention is and not what the invention isn't. Note, no further prior art rejections can be made until the above new matter issue is resolved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Wong et al. (U.S. Patent 6,172,680 B1).

In reference to claims 1 and 5, Wong et al. discloses a method for providing video graphics processing including anti-aliasing of an object's edges by walking a first and second edge of an object element (see lines 1-5 of abstract). Wong et al. discloses an example of the object to be a triangle and an object element to be the left edge of the triangle (see column 2, lines 57-61). Note, the office interprets the edge of an object element (i.e. an edge of the triangle as disclosed above by Wong et al.) substantially similar to the anti-aliased lines of applicant's claim 1 as polygons are made up of primitive graphical lines. Wong et al. also discloses for two edges of the triangle, or two line segments of the triangle, determining which orientation class the line falls into by edge walking and using an error term and threshold value to determine in which direction, a major or minor direction, to walk (see column 11, lines 40-66 and Figure 6). Wong et al. discloses determining different subpixel masks, which are then processed to produce pixel information for a given pixel (see column 1, lines 36-38), dependent upon the changes in the X and Y traversed directions (see columns 12-13, lines 53-9 and Figure 9). Note, the office interprets the subpixel masks substantially similar in functionality to the sampling patterns of applicant's claims and also believes the further processing of subpixel masks, discloses above by

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Wong et al., to be substantially similar to the sampling of subpixels. Note, in reference to claim 5, the office interprets that the edge walking of Wong et al. substantially determines a direction which is most nearly parallel to a line segment of an object since the edge walking of Wong et al. uses the difference in length between the major axis and the edge (see "error terms" of Figure 6) to decide if and when to walk in the minor direction. Further, since Wong et al. discloses determining different subpixel masks, which are then processed to produce pixel information for a given pixel (see column 1, lines 36-38), dependent upon the changes in the X and Y traversed directions (see columns 12-13, lines 53-9 and Figure 9), the office interprets the subpixel masks having maximal resolution normal to the direction they're calculation is based upon (i.e. major direction) versus the opposite direction (i.e. minor direction).

In reference to claim 2, Wong et al. discloses all of the claim limitations as applied to claim 1 above in addition, Wong et al. discloses the edge walking process to operate in the two directions of X and Y (see column 11, lines 52-66 and Figure 6).

In reference to claim 3, Wong et al. discloses all of the claim limitations as applied to claim 1 above in addition, Wong et al. discloses the creation of the subpixel masks to be dependent upon the slope of the previous direction taken or the orientation of the line determined by edge walking (see columns 12-13, lines 63-9).

In reference to claim 6, Wong et al. discloses all of the claim limitations as applied to claim 5 above in addition, Wong et al. discloses the edge walking process to operate in the two directions of X and Y (see column 11, lines 52-66 and Figure 6).

In reference to claims 7 and 8, Wong et al. discloses all of the claim limitations as applied to claims 1 and 5 respectively above in addition, Wong et al. discloses a video graphics processor

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including a processing unit for executing the above disclosed methods (see column 12, lines 18-35 and Figures 7 and 8).

Response to Amendment

3. The cancellation of claim 4 is noted.

4. The amendment filed 12/18/2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

Amendment A, filed 12/18/2003 proposes the addition of new matter into the disclosure in paragraph [0206] (page 44) by reciting, "...wherein said determination is made without the use of an error term or per pixel decisions." Such new matter is not supported by the specification as originally filed and the fact that such new matter was added to the specification is further proof of its absence in the originally filed specification. Therefore the above limitation presents new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed. Applicant is required to cancel the new matter in the reply to this Office Action.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (703) 305-1391. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (703)-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

aac

2/18/04



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600